DOCUMENT RESUME

ED 277 352 IR 012 442

AUTHOR Castro, Angela S.
TITLE Videotex in Tertiary Education: The Missing Links.
INSTITUTION Australian Open Learning Information Network, Victoria.
PUB DATE 86
NOTE 14p.; A keynote address presented at the Asian-Pacific Conference and Exhibition (2nd, Sydney, Australia, July 1, 1986). For a related paper, see IR 012 424.
PUB TYPE Reports - Descriptive (141) -- Viewpoints (120) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Administration; Continuing Education; Curriculum Design; Foreign Countries; Government Role; *Higher Education; *Information Dissemination; *Postsecondary Education; Staff Development; Student Development; *Videotex
IDENTIFIERS *Australia; British Council; Prestel; *United Kingdom; Viatel (Australia)

ABSTRACT

This paper briefly reviews the changing circumstances of Australian tertiary education, describes 10 areas of potential and current Australian activities in videotex, and explains how the lack of popular access to a public videotex system like Viatel, together with the lack of a coordinating body equivalent to the British Council for Educational Technology and Prestel Education, have retarded the growth of videotex in Australian education. The term "tertiary" is used to cover the 19 universities in Australia, the Colleges of Advanced Education, and the Technical and Further Education Colleges. The transitional state of Australian tertiary institutions is discussed in terms of curriculum redesign, staff and student development, educational applications, and management structure. A review and comparison of the British and Australian educational systems includes the British government's policy toward microcomputers in schools; its move into continuing education programs and the development of Prestel education; and Australia's lack of a videotex supporting environment on tertiary campuses. Several philosophical and practical solutions to the problem are proposed. (DJR)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

ED277352

AOLIN

AUSTRALIAN OPEN LEARNING INFORMATION NETWORK

Videotex in tertiary education
the missing links

Angela S. Castro

AOLIN, Australia, 1986.

IR012442

BEST COPY AVAILABLE

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Angela Castro

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

VIDEOTEX IN TERTIARY EDUCATION: THE MISSING LINKS

Angela Castro
Deakin University, Victoria 3217, Australia.

A keynote address delivered on 1 July 1986 at the National Forum during the 2nd Asian-Pacific Conference and Exhibition held at the Hilton International, Sydney, Australia.

ABSTRACT

The speaker briefly outlines the changing circumstances of Australian tertiary education, then goes into ten areas of potential and actual Australian activites in videotex, and explains how the lack of popular access to a public videotex system like Viatel, together with the lack of co-ordinating bodies equivalent to the British Council for Educational Technology and Prestel Education, have retarded its growth in Australian education.

INTRODUCTION

I am going to present a rather impressionistic report on current Australian tertiary activities in videotex, followed by a suggestion that we should look at the missing links of popular access and some coordinating bodies equivalent to the British Council for Educational Technology and Prestel Education, which, in my view anyway, have not helped the potential growth of videotex in both the tertiary sector and in the Australian community.

The personal views expressed in tonight's address perhaps should be considered together with those in another paper called A hitch-hiker's guide to the world of videotex, jointly written with Dr. Paul Bacsich of the Open University and to be presented on July 2 to the Special Seminar on The Future of Videotex in Tertiary Education.

THE TRANSITIONAL STATE OF AUSTRALIAN TERTIARY INSTITUTIONS

The term "tertiary" is used to cover a very wide range of institutions in Australia: the nineteen universities, the vast number of Colleges of Advanced Educations and the Technical and Further Education Colleges.

These institutions are going through a very interesting phase in that while the more progressive and socially oriented ones are now looking at the offering of continuing and professional updating courses of an open learning type which may or may not carry nationally recognised awards or professional qualifications, there are others who want to move up to a more traditional university-like or high tech status. My guess is that quite a few of us would want to be able to have the cake and eat it too, and that can really

get us into trouble especially when the education budget has little or no growth potential.

As a result, we are now being challenged by the Federal and State Governments and the Australian community to redesign our curriculum to arrive at a suitable mix within a fixed budget, a very difficult assignment indeed - an assignment that is going to take time, a lot of soul searching, and resulting may be in certain concessions with respect to institutional pride and territory.

The arrival of technology on campus has, however, taken away the luxury of time to debate over issues, policies and directions. Anything concerning technology is a very sensitive issue on campus these days because it means extra dollars in capital and recurrent maintenance costs. Some staff in Australian universities are quoting the cases of private American universities and ask for "a micro on every desk". Let us be honest and realistic, what is really meant is "a micro on every staff's desk", a more achievable dream than a micro for every student.

Nevertheless, such requests have ended in institutional compromises like micro-labs or a videotex terminal tucked away in a corner of the library, but most institutions really have not given much thought to such issues like:

* Personal development of staff and student;
* Educational applications;
* Management structure to accomodate the new information technology.

These are further complicated by such wider social considerations like equity and parity. Non-educators might think that such debates are self-inflicted agonies, but they are very real problems confronting us as as educators in a country that believes that education is a civic right but cannot find the needed resouces to make that happen very quickly.

Because we are still at a crossroad, we have not been able, in my view any way, to present a united front or a platform of consensus in dealing with videotex, the theme of this Conference. So it is on this rather pessimistic note that I shall now talk about tertiary interest and involvement in videotex.

POTENTAIL TERTIARY INTEREST AND DEVELOPMENT IN VIDEOTEX

A tertiary institution may participate in one or more of the following activities (refinement of a list by Bacsich 1984, p.5):

1 Register as a user on a public videotex system like Viatel.

2 Register as an information provider on a public videotex system like Viatel.

3 Development of trial videotex systems.

4 Implementation of live videotex systems for internal on-campus use.

5 Implementation of live videotex systems for both on-campus use and limited external use of permitted users.

6 Running a videotex bureau service.

7 Teaching about videotex.

8 Staff doing small-scale, piece-meal videotex software adaptation or development on some specific computer systems (usually micros).

9 Research (i.e. systematic investigation or evaluation) into videotex.

10 Consultancy on videotex.

I try to collect documents and newspaper cuttings on what people and organisations are doing with videotex. But I must admit that I usually take such announcements with a grain of salt until I have actually received subsequent reports to prove that declared intentions have been substantiated by actions. In the computer world, apparently there is now a newly coined term of "Vapor-ware" to describe software which never materializes or takes a long time to materialize. We are all guilty of producing vapor-wares at times.

It will be useful if someone can actually collate information about ongoing videotex activities or projects and disseminate such information regularly and widely. I went on to Viatel recently to see if I could make some sense out of all the announcements and intentions and I am afraid that I could not. For the moment I can only give a rather impressionistic report on what I am aware has happened or is happening, and I welcome additional information from people who know of instances when some of these have actually happened or are happening.

CURRENT TERTIARY ACTIVITIES IN VIDEOTEX

1 I looked up the Educational User Directory on Supertext a week ago, and these are the frames found.

[Viatel frames *50051, *500512, *500513]

The number of entries is rather small, and yet I know that quite a few tertiary staff do have a Viatel box, but what I am not sure is whether they are there as individuals or as institution-funded members. I suspect

that many people and institutions just have not got round to registering with Edutel, that is all.

2 Which tertiary institutions are Viatel information providers or sub-providers? Again, the result of my search was not encouraging. University of New England and Deakin University, and now the University of New South Wales, are probably the most prominent participants, but some TAFE colleges are also active. The total number, however, is still too small for even a cautious degree of optimism.

I shall now show a few frames to illustrate the types of uses they make of Viatel.

[Deakin *454, New England *5000001, NSW *5000031]

So you can see that most tertiary institutions are using Viatel really only for two purposes:

* Creating a community presence, and
* Giving some information about the courses and activities of the institution.

Deakin is an information provider, while the University of New England is a sub-provider on Edutel. Deakin pays over $3000 a year for its 100 frames, much more than New England has to, but Deakin has made no attempt to exploit its unique marketing opportunity or use the closed user group facilities.

3 I don't have precise information about whether some institutions are developing their own videotex systems.

For the moment, I would just like to mention that I have read a short paper by John Kirk of South Australia who is with us here at the Conference. John proposed the implementation of a TAFE videotex service in 1986-87 and he said that they should call on a professional agency to help with the design. I would very much love to hear what becomes of this proposal.

I believe that the S.A. TAFE is a Viatel user but its information is on two private systems: Elders Farmlink and ICL Bulletin.

4 I have not heard of an in-house system that is in operation in a tertiary institution. But this situation could change if people manage to justify its development and implementation, and win the necessary resources.

It may be useful to quote the words of C.J. Sealey (1985) from Micro Scope:

> It is hard to see the raison d'etre for an organisation to develop its own private network if the public network is efficient, friendly and cost effective. (p.15).

5 I have not heard of a system in operation for on-campus and off-campus students.

But then I must mention the work being done at the Educational Technology Centre of the Education Department in South Australia. They ran an educational videotex system for the first half of 1983 using an ICL computer. Thirteen sites including five schools were supplied with Prestel terminals. Apart from the traditional components of the database, there was a videotex version of the State supply catalogue from which schools could order on-line, and a videotex version of the Education Gazette was available ten days prior to the hard copy version's arrival.

Here is Viatel frame (*5001186a) about this enterprising Centre.

I believe that the NSW Deprtment of Education is also taking some positive action in the setting up of a videotex network. What I am not clear is whether they allow home access as it was the case with Robin Bishop's Correspondence School Project (Bishop 1985).

Without wishing to dampen the enthusiasm of people who want to do their own thing and develop and implement a private system which is accessible directly or through a Viatel gateway by all its students, I would like to quote at length the words of Paul Bacsich, who played a focal role in the technical development of Optel, the Open University's in-house system:

> The main justification for the development of a university capability in videotex was to prepare for the day when a considerable number of Open University students have videotex terminals...Now a mass student market has not happened nor will it happen for some years unless we take positive action to remedy the situation. With 60,000 students it is impossible for us to supply them with free videotex terminals; so the only solution is to encourage them to buy them for themselves. But such a purchase puts up the effective cost of an Open University course, and we are already worried that the cost is too high for a substantial part of the population. The situation admits of no easy solution in the short term. (Bacsich 1984, p.7)

He was writing in 1984, a few years after the Optel system was developed and implemented. Very sobering words indeed for those institutions which talk of national access by students.

6 I only know of Mentor at the Royal Melbourne Institute of Technology which is offering a bureau service. Their Coursefinder attempts to list part 1 of the Directory of External Courses prepared by Queensland University. On

the other hand, there is the Australian Caption Centre which was endorsed by the Minister of Education last August to provide videotex service to Australian education, but I am not certain of its funding situation or arrangement with the Government. Edutel, its database, is currently providing some useful information in a number of areas.

7 It seems unlikely that videotex is taught in universities. There could be some technician-level courses being taught at CAE and TAFE colleages. But as far as I am aware, computing academics by and large do not teach videotex except as something incidental to the computer graphics curriculum.

I believe that a Victorian college and Macquarie University are using Viatel to teach some basics of computer technology.

8 This is probably the arena where you get a large number of players on tertiary campuses. They are mostly sincere and well-meaning people who want to find out if videotex can help their teaching or administration. On the whole, they are unaware of the high level of expertise which is already available in the videotex industry, but even if they were, they tend to still want to find out how to do certain things by themselves. In other words, they are engaged in a sort of self-learning and self-discovery process which can result in some fine, custom-made packages of much benefit to themselves and to the institution they serve.

9 Research into videotex. We sometimes have problems defining the very noble word "research". I feel that research should be regarded as systematic investigation and evaluation with very clear aims and objectives. If that is the case, then we have done very little "soft" or "hard" research into videotex research here in the Australian tertiary sector. By "soft", I mean the sociological, human and application studies, and by "hard", I mean research into standards, networks and user interfaces. The latter is caused, I think, by the unspoken but apparent campus stigma about videotex; serious computer scientists do not seem to want any association with videotex, which, to them, are fun but naive.

I would just like to mention that Dr. Andrew Jakubowicz from the Department of Sociology at the University of Wollongong is going to look at the use of videotex information by migrants. This will be a challenging but worthwhile research project.

There is also increasing attention paid to screen-based information (Aslib 1983) and I hope that people will start sharing their thoughts and experiences even though they have not conducted any formal research on the subject.

10 I am unaware of anybody from an tertiary institution who is working as a videotex consultant. But this is perhaps not surprising because there are already so many good people in the Australian videotex industry. I hold the view that the Educational Sector should collaborate more closely with these professionals in their videotex investigations. We could learn a lot more together in a shorter span of time than if we were to go our separate ways.

The above is a very simplistic approach to finding about tertiary activities in videotex. I don't think anybody will quarrel with me if I say that nothing very exciting is happening on a national scale, especially where the universities are concerned, and most activities, if any, are very fragmented and uncoordinated.

The state education departments and TAFE seem to be more innovative and active. But even so, if we look at what is available on Viatel about education and compare the following parallel activities on British Prestel, we have not come off too well:

* The Council for Educational Technology runs an Educational Umbrella Service with some 3,000 pages of inormation from over 150 sources (Prestel page 211)

* The Department of Education and Science runs over 200 frames on Prestel giving detailed information about the education system in England and Wales, specialist facilities, rights and responsibilities, grants and financial assistance, statistics and legal matters affecting education (Prestel page 50043)

* Over 10,000 pages of education information on courses, career, curriculum and computing in mainly the school level with some specialised section on higher education courses are available through Prestel education.

Tomorrow I shall be giving some information about videotex activities in Canada, another active country.

And so the question must be asked, why has the tertiary sector made so little progress in the use of videotex? The answer may be: the lack of a supportive environment.

THE BRITISH ENVIRONMENT

Let us briefly review what has been happening in the United Kingdom and then compare the British situation with the Australian one.

In 1979, the British Government announced a computer literacy program and 12.5 million pounds were allocated to

help put a micro in every school with government subsidy. The BBC micro, a product developed, endorsed and backed by a well-respected public organisation, literally swept the school and domestic market. So right away, you have a clear government policy, a spelt-out amount of funds and an ipso facto system standard; all these together enabling things to happen more easily.

British educational institutions also happened to start moving into the continuing education, adult education, and open education areas, all of which have been well received by the British public. So we have the National Extension College, various Polytechnics, Colleges of Further and Continuing Education, and the Councils for Educational Technology all sharing a goal of bringing educational opportunities into the home and classroom via the new technologies. The Open University, a world leader in distance education, is also moving into continuing and open education, admittedly more slowly. The videotex research expertise built up within the University in the last ten years has been and is being shared, notably in the ECCTIS Project which I hope to discuss in more detail tomorrow. ECCTIS is the course database that is sponsored by the Department of Educational and Science and held at the Open University.

In 1982, Prestel recognised that they would have to look at the educational needs of the general public and it approached the Council for Educational Technology (CET, in London) to develop Prestel Education. Funding was awarded for a two-year period by CET, the Department of Trade and Industry which has been the public purchaser for the micros in schools, and Prestel.

Education Prestel was formally launched in January 1985, after 15 months of planning and work. Leslie Mapp. Videotex Services Manager at the CET, in a short write-up about Prestel Education, speaks of the 4 C's (Courses, Career, Curriculum, and Computing) which are being targeted for activities in schools, but he also mentions collaboration with ECCTIS.

Prestel Education offers discount to Colleges of Further and Higher Education, Polytechnics and Universities. They are eligible for a discount of one-third on the Prestel time-based charges. The Education Standing Charge of 20 pounds a quarter includes a subscription to Prestel Microcomputing and Micronet 800.

I would like to quote what Chris Knowles, Prestel's Education Services Manager, said of tertiary involvement:

> Further and Higher Education Colleges are very interested in using Prestel for vocational courses, especially in the Business Studies area. For example, some examination boards have already made Prestel a mandatory part of courses for the travel trade. Prestel is also ideal for teaching

> Information and Computing awareness courses.
> (quoted in In-Form, p.4)

THE AUSTRALIAN ENVIRONMENT

What have we got here in Australia in terms of an videotex supporting environment?

Do we have a CET? Do we have a managed Prestel Education?? Is the Government going to accept the recommendations of the Australian Education Council Task Force on Education and Technology and provide some firm policy and guidelines on the use of technology? Do we have any formal network of people interested in doing something about the very uncoordinated activities in videotex?

Until all those things happen, we feel that "high street" visibility of Viatel could stimulate more campus interest in videotex. Could Telecom Australia and the Australian videotex industries perhaps install videotex terminals in post-offices and shopping malls? Could we all use our home telephone numbers as customer identification numbers and be charged for what we use?

Margaret Bruce, writing about the German videotex system Btx, has this to say:

> Creative marketing strategies for the new information system have to be devised to make some impact on the public consciousness about the existence and capabilities of Btx. (Bruce 1986, p.11)

Now that Viatel is quite established among the business sector, will there be a shift of focus to the domestic market ? (Barney 1985) This should help the emergence of the next target group, the educators and their students.

Deakin has the distinction of being the first university to become an information provider on Viatel, and yet to this date, there are no public access terminals on campus to introduce the database to our staff and students.

This lack of access is more the rule than exception on most tertiary campuses in Australia today. While some libraries have appealed and got a single system to put away in a corner for the ocassional use of staff and students, there is no real institutional effort to promote this new information system. The usual fears are:

* People will play games and push up the connect-time charges.

* People will access the frames carrying charges and push up the monthly bill.

* People will order goods or play practical jokes on the institution.

* We need to hire extra maintenance staff on duty to show people how to use it.

Solutions proposed include:

* Let us have a coin-operated system.
* Let us prohibit the use of response frames.
* Let us prohibit the access of charge-carrying frames.

These solutions have philosophical as well as practical problems, the latter ones are really quite easy to solve but they are very dependent on the philosophical stance of the institution with regard to information handing. Some of the questions we must ask ourselves when using a videotex system like Viatel include:

1 What sort of information should be made available?

2 Should that information be given free?

3 Can we make the information available to a wider audience than those who can afford to own a computer system?

4 How could we develop and manage our database on Viatel innovatively and responsibly?

I beg to part company with some people in that I do not believe Viatel is a suitable teaching tool or a serious communication tool for the tertiary sector. There are better tools for doing those tasks, but this does not alter the fact that Viatel is very useful for disseminating certain simple and current information, and it is a very delightful and inexpensive medium for doing just that. I would like to close my talk by showing you some Deakin statistics on the frequency of use of our Viatel frames by the public between 9 May and 16 June this year.

Title & index *454	565
About the University *4541	96
Study programs *4542	345
Off-campus study *4543	335
Coming events *4544	158
Response frames index *4546	40
Conference & holiday bookings *4547	49
Applications 1987 off-campus *4548	92
New books & tapes *4549	231

REFERENCES

Bacsich, P.D.(1984)
Videotex in education: the British situation.
Optel report no. 15.
Open University, Milton Keynes.

Barney, K. (1985)
Viatel claims success
Financial Review, 3 June, 1985, p.32

Bishop, R. (1985)
Electronic mail trial using videotex and facsimile
The Correspondence School, Sydney.

Bruce, M. (1986)
Marketing Btx: a survey of Btx's high street visibility.
(Unpublished paper)

Education and technology. Report of the Australian Education Council Task Force on Education and Technology. October 1985.

Information technology on screen: new approaches in viewdata, teletext and cable.
Proceedings of the joint one day seminar held by Aslib/Institute of Information Scientists/Library Association at the Polytechnic of the South Bank, Monday 8 November 1982.
Library Association, London, 1983.

Kirk, J. (1986)
A proposal for the implementation of TAFE videotex service in 1986/87.
(Unpublished paper)

Mapps, L. (1985)
"The birth of Prestel Education", in In-Form, issue 1, Autumn, p.4.

Sealy, C.J. (1985)
Videotex is alive and well and living in the antipodes.
A paper presented to the Videotex International Conference in Amsterdam on 29th-31st November 1985.

ABOUT THE AUTHOR

Angela Castro is an instructional designer in a research and development division at Deakin University. Since 1980, she has been investigating the use of computers for electronic publishing, information dissemination, and teaching and learning support. In recent years, she has concentrated mainly on computer conferencing, online bibliographical databases and videotex research. She is the Chairman of AOLIN, a national network for information technology

researchers. This paper and her other works on technology-related topics can be ordered and supplied electronically from Admin/AOLIN on Telecom Australia's Telememo service. She can be contacted on Viatel: 24712550, and on the ACSnet: angela@Charlie.oz.